H. TYPHOON LOUISE (30 AUGUST - 7 SEPTEMBER 1959)

On 27 August, while Typhoon JOAN was approximately 400 miles southeast of Taiwan, an elongated low pressure area extended from the vicinity of Truk eastward along the Intertropical Convergence Zone. Throughout the 28th, surface analyses indicated the formation of a closed circulation between Truk and Guam. Reconnaissance on the afternoon of the 30th confirmed the existence of a closed surface circulation, and Tropical Depression LOUISE was named. Subsequently, multiple circulations in the same general area were reported, but the strongest center, relocated west-northwest of Guam, retained the name LOUISE.

Throughout the 31st, LOUISE intensified and moved westerly at a speed of 12 knots. At 312105Z, based on reconnaissance, LOUISE was upgraded to a tropical storm. Throughout September 1st, slow recurvature toward the north-northwest took place with little change in speed. LOUISE also intensified rapidly so that at 010800Z she was upgraded to a typhoon. From the 2nd through the 5th, Typhoon LOUISE maintained a north-northwesterly movement at speeds varying from 5 to 14 knots accompanied by steady intensification. She appears to have reached peak intensity on the 3rd when maximum winds near the center of 125 knots and a sea level pressure of 964 millibars were reported. LOUISE crossed the northern coast of Taiwan at approximately 031300Z with estimated maximum surface winds of 115 knots. The diameter of the eye at this time was approximately 50 miles, and the center tended to slide over and around northern Taiwan. On reaching the Taiwan Straits, the eye diameter had increased to 100 miles, and the maximum surface winds had decreased to an estimated 65 knots. At

040600Z, due to rapid weakening, LOUISE was reduced to a tropical storm, and at approximately 041200Z she entered the Chinese coast near 26.5 degrees north. Shortly thereafter recurvature toward the north-northeast took place. Due to continued orographic weakening LOUISE was reduced to a tropical depression at 041800Z. At 052100Z, in the vicinity of Shanghai, LOUISE regained the open sea and proceeded northward intensifying slightly. At 060000Z she once again increased to tropical storm intensity. As LOUISE moved farther into northern latitudes she again began to weaken, and at 072100Z she was reduced to a tropical depression and the final tropical warning issued . By this time LOUISE had developed into an extra-tropical low imbedded in the Polar Front.

Post analysis of the upper air charts indicates that the persistence of the semi-permanent Pacific High to the northeast of LOUISE resulted in her prolonged, steady, north northwesterly movement onto the China Coast. This is typical of late August climatology. After reaching approximately 30 degrees latitude, she passed the ridge-line of the high and thereafter had a more northerly to northeasterly movement. Thirty-eight warnings were issued covering a period of 10 days.

For damage caused by Typhoon LOUISE see section VI, "Destructive Effects of Typhoons."

RECONNAISSANCE AIRCRAFT FIXES - TYPHOON LOUISE

FIX NO.	TIME	LAT.	LONG.	*UNIT METHOD & ACCY	MIN SLP MBS	MAX SFC WND	MIN 700MB HGT	MAX FLT LVL WND	700MB TEMP (°C)	700MB DEWPT (°C)	EYE CHARACTERISTICS
1	300030Z	14.5N	141.0E	54-P-5	1008	15	- -	- -	24	20	CNTR CALM
2	310645Z	14.3N	134.9E	54-P-5	1001	20	- -	25	24	24	EYE DIFFUSE
3	312105Z	15.0N	131.9E	54-P-5	996	35	9950	45	11	08	WALL CLDS, SPIRAL BANDS
4	010800Z	15.2N	129.7E	54-P-5	986	65	9830	60	13	10	CIRC DIA 60 MI
5	011930Z	16.6N	127.0E	54-P-2	- -	- -	9820	25	13	08	EYE INDEFINITE
6	012110Z	16.9N	127.7E	54-P-2	985	65	9720	- -	13	08	CIRC DIA 40 MI
7	020200Z	16.9N	126.1E	54-P-2	980	85	9660	- -	12	12	CIRC DIA 50 MI
8	020800Z	18.1N	125.2E	54-P-2	977	80	9450	80	16	13	ELLIP 35X20 MI
9	021050Z	18.7N	124.6E	12-R-5	- -	- -	- -	- -	- -	- -	CIRC DIA 30 MI
10	021430Z	20.0N	124.4E	54-R-5	- -	- -	- -	- -	- -	- -	CIRC DIA 55 MI
11	022000Z	20.4N	123.6E	54-R-10	- -	- -	- -	- -	- -	- -	CIRC DIA 50 MI
12	022215Z	20.8N	123.4E	54-P-3	971	100	9180	- -	17	11	CIRC DIA 50 MI
13	022244Z	20.9N	123.5E	12-R-5	- -	- -	- -	- -	- -	- -	CIRC DIA 50 MI
14	030200Z	21.8N	122.9E	54-P-5	971	125	9180	- -	16	11	CIRC DIA 40 MI
15	030810Z	22.9N	122.4E	54-P-5	964	95	9120	90	16	13	CIRC DIA 65 MI
16	031042Z	23.6N	121.8E	12-R-0	- -	- -	- -	- -	- -	- -	CIRC DIA 50 MI
17	031400Z	24.3N	121.4E	54-T-20	- -	- -	- -	- -	- -	- -	----------
18	032000Z	25.0N	121.4E	54-T-25	- -	- -	- -	- -	- -	- -	EYE INDEFINITE
19	032315Z	25.0N	120.7E	54-P-2	993	125	9940	- -	11	11	CIRC DIA 50 MI
20	040200Z	25.5N	120.4E	54-P-2	994	65	9910	- -	12	11	CIRC DIA 100 MI

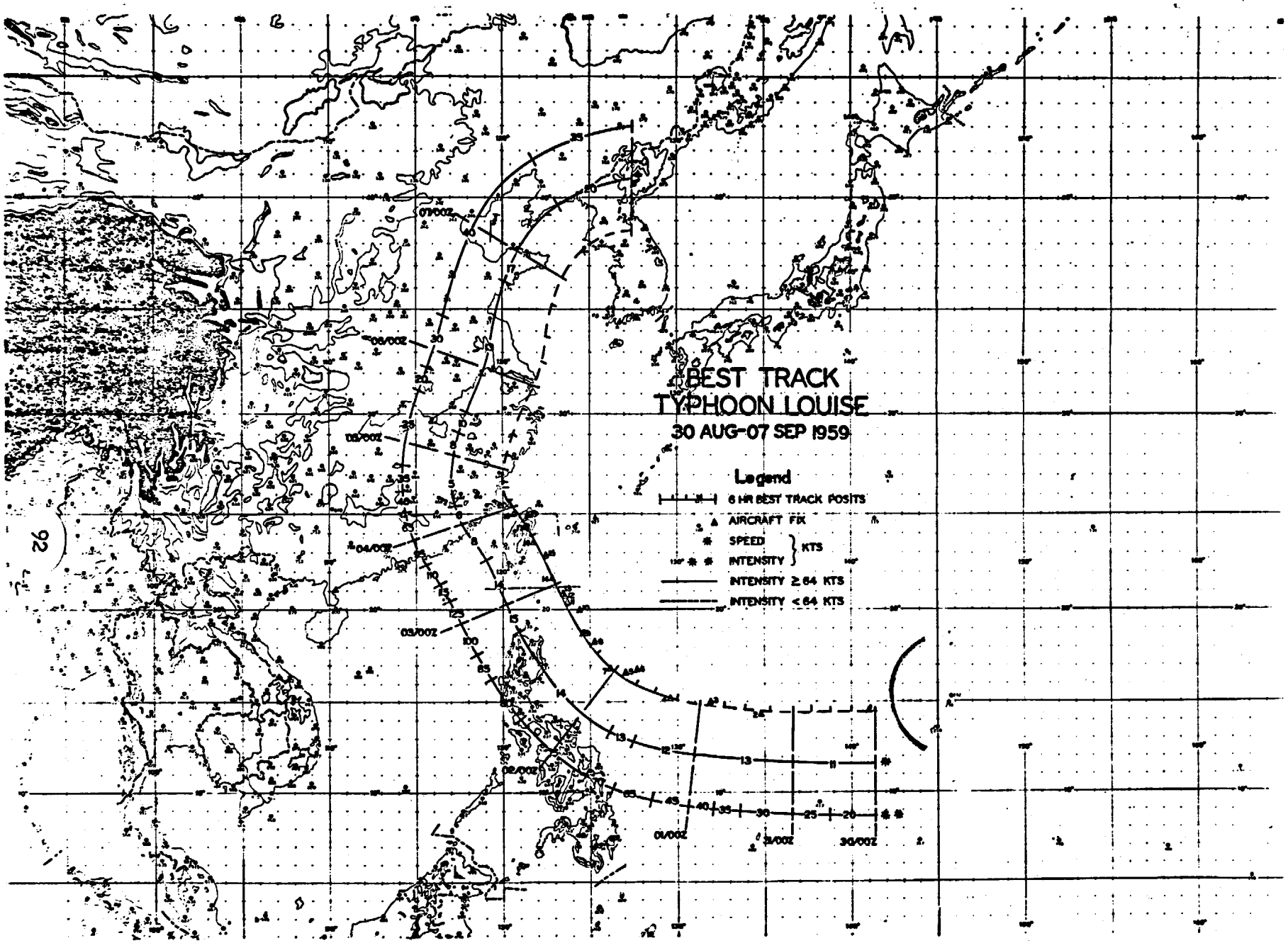
TYPHOON LOUISE 30 AUG - 07 SEPT 1959
POSITION AND FORECAST VERIFICATION DATA

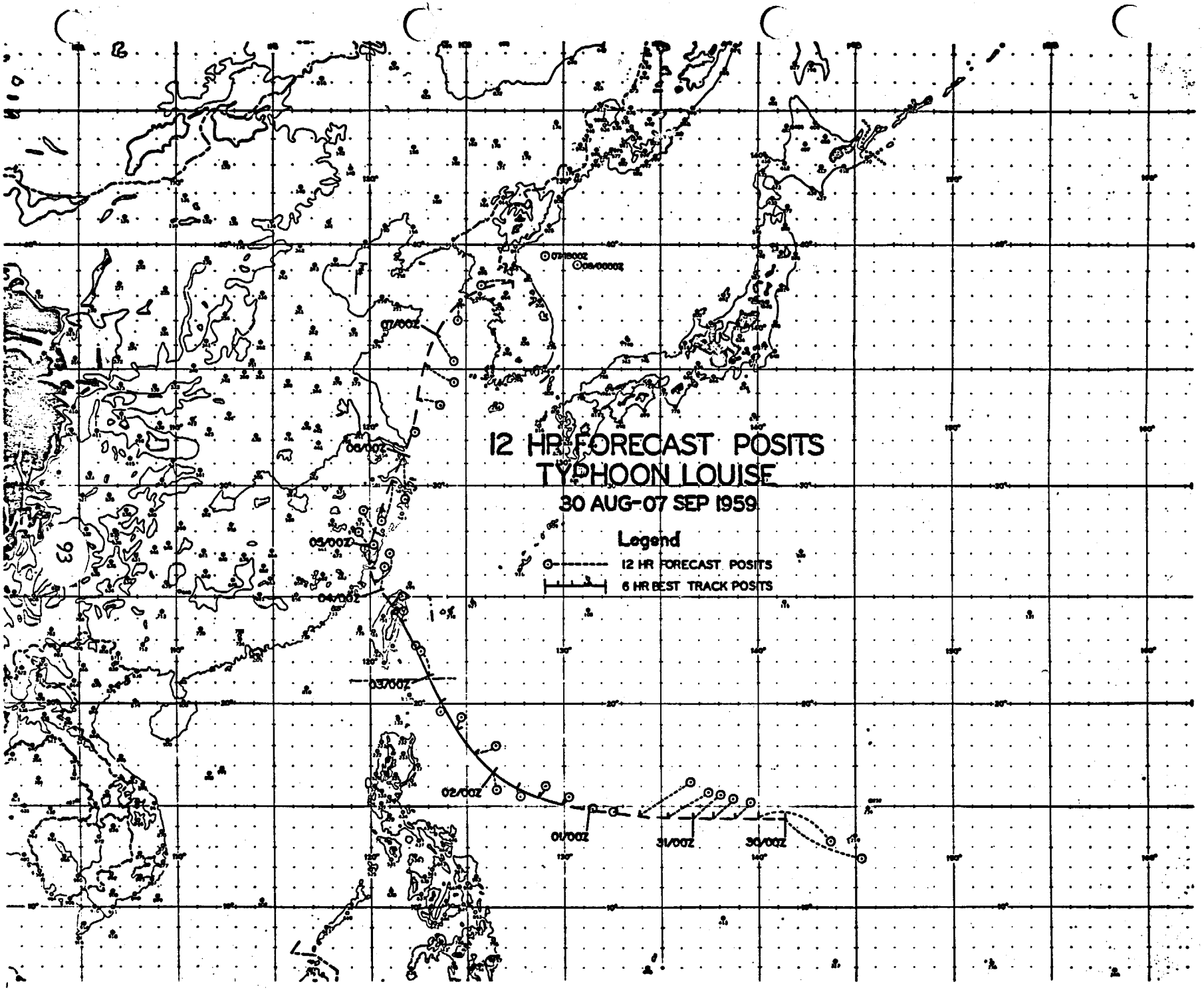
DTG	STORM POSITION LAT.	LONG.	12 HR ERROR DEG.	DISTANCE	24 HR ERROR DEG.	DISTANCE
300000Z	14.4N	141.2E	- - - -		- - - -	
300600Z	14.5N	140.0N	- - - -		- - - -	
301200Z	14.5N	138.8E	- - - -		- - - -	
301800Z	14.5N	137.7E	- - - -		- - - -	
310000Z	14.5N	136.6E	- - - -		- - - -	
310600Z	14.5N	135.2E	- - - -		- - - -	
311200Z	14.6N	133.9E	- - - -		- - - -	
311800Z	14.7N	132.6E	- - - -		- - - -	
010000Z	14.9N	131.2E	- - - -		- - - -	
010600Z	15.2N	130.0E	013	22	- - - -	
011200Z	15.5N	128.8E	017	32	- - - -	
011800Z	16.0N	127.6E	175	32	010	18
020000Z	16.8N	126.3E	042	13	076	55
020600Z	17.8N	127.3E	079	69	183	87
021200Z	18.9N	124.5E	171	35	193	122
021800Z	20.1N	123.7E	190	15	112	45
030000Z	21.5N	123.1E	341	75	345	80
030600Z	22.8N	122.4E		0	203	58
031200Z	23.9N	121.6E	040	26	353	144
031800Z	24.6N	121.1E	050	40	025	94
040000Z	25.2N	120.6E	002	72	023	167
040600Z	25.7N	120.2E	028	89	037	162
041200Z	26.2N	120.1E	358	76	005	190
041800Z	26.7N	120.0E	311	70	015	204
050000Z	27.2N	120.0E	325	58	000	195
050600Z	28.0N	120.2E	- - - -		310	123
051200Z	29.0N	120.5E	- - - -		293	90
051800Z	30.2N	121.1E	- - - -		- - - -	
060000Z	31.3N	121.8E	- - - -		- - - -	
060600Z	32.6N	122.2E	- - - -		- - - -	
061200Z	33.8N	122.5E	107	71	- - - -	
061800Z	35.2N	122.8E	- - - -		- - - -	

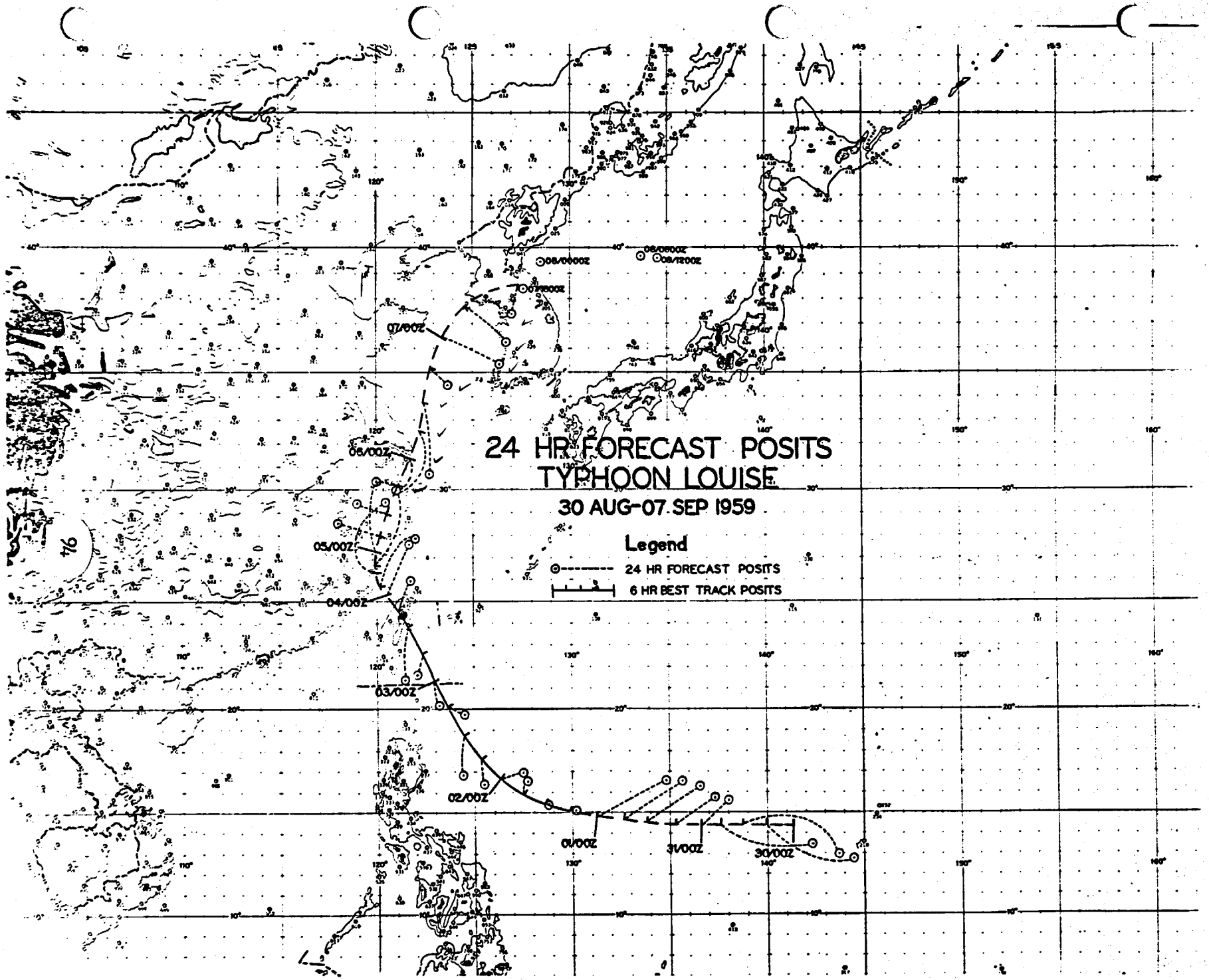
TYPHOON LOUISE 30 AUG - 07 SEPT 1959
POSITION AND FORECAST VERIFICATION DATA (CONT'D)

DTG	STORM POSITION LAT.	LONG.	12 HR ERROR DEG.	DISTANCE	24 HR ERROR DEG.	DISTANCE
070000Z	36.3N	123.4E	- - - -		- - - -	
070600Z	37.7N	124.7E	- - - -		- - - -	
071200Z	38.5N	127.0E	- - - -		- - - -	

AVERAGE 12 HOUR FORECAST ERROR 46.8 NM
AVERAGE 24 HOUR FORECAST ERROR 114.6 NM


BEST TRACK
TYPHOON LOUISE
30 AUG-07 SEP 1959
Legend
6 HR BEST TRACK POSITS
AIRCRAFT FIX
SPEED
INTENSITY
KTS
INTENSITY ≥ 64 KTS
INTENSITY < 64 KTS
01/00Z
02/00Z
03/00Z
04/00Z
05/00Z
06/00Z
07/00Z
21/00Z
30/00Z


12 HR FORECAST POSITS
TYPHOON LOUISE
30 AUG-07 SEP 1959
Legend
12 HR FORECAST POSITS
6 HR BEST TRACK POSITS
07/00Z
08/00Z
06/00Z
05/00Z
04/00Z
03/00Z
02/00Z
01/00Z
31/00Z
30/00Z


24 HR FORECAST POSITS
TYPHOON LOUISE
30 AUG-07 SEP 1959
Legend
24 HR FORECAST POSITS
6 HR BEST TRACK POSITS
08/00GZ
08/06GZ
08/12GZ
07/00Z
06/00Z
05/00Z
04/00Z
03/00Z
02/00Z
01/00Z
31/00Z
30/00Z